

Base Map prepared by U.S. Geological Survey, 1992. Zones of required investigation boundaries may reflect updated digital topographic data that can differ significantly from contours shown on the base map.

PURPOSE OF MAP

This map will assist cities and counties in fulfilling their responsibilities for protecting the public from the effects of earthquake-triggered ground failure as required by the Seismic Hazards Mapping Act (Public Resources Code Sections 2690-2699.6).

For information regarding the general approach and recommended methods for preparing this map, see DMG Special Publication 118, Recommended Criteria for Delineating Seismic Hazard Zones in California.

For information regarding the scope and recommended methods to be used in conducting the required site investigations, see DMG Special Publication 117, *Guidelines* for Evaluating and Mitigating Seismic Hazards in California.

For a general description of the Seismic Hazard Mapping Program, the Seismic Hazards Mapping Act and regulations, and related information, please refer to the website at www.conservation.ca.gov/cgs/. Production of this map was funded by the Federal Emergency Management Agency's Hazard Mitigation Program and the Department of Conservation in cooperation with

IMPORTANT - PLEASE NOTE

DMG Special Publication 42.

the Governor's Office of Emergency Services.

1) This map may not show all areas that have the potential for liquefaction, landsliding, strong earthquake ground shaking or other earthquake and geologic hazards. Also, a single earthquake capable of causing liquefaction or triggering landslide failure will not uniformly affect the entire area zoned.

2) Liquefaction zones may also contain areas susceptible to the effects of earthquakeinduced landslides. This situation typically exists at or near the toe of existing landslides, downslope from rockfall or debris flow source areas, or adjacent to steep stream banks.

3) This map does not show Alquist-Priolo earthquake fault zones, if any, that may exist in this area. Please refer to the latest official map of earthquake fault zones for dis-closures and other actions that are required by the Alquist-Priolo Earthquake Fault Zoning Act. For more information on this subject and an index to available maps, see

4) Landslide zones on this map were determined, in part, by adapting methods originally developed by the U.S. Geological Survey (USGS). Landslide hazard maps prepared by the USGS typically use experimental approaches to assess earthquake-induced and other types of landslide hazards. Although aspects of these new methodologies may be incorporated in future California Geological Survey (CGS) seismic hazard zone maps, USGS maps should not be used as substitutes for these Official SEISMIC HAZARD ZONES maps.

5) U.S. Geological Survey base map standards provide that 90 percent of cultural features be located within 40 feet (horizontal accuracy) at the scale of this map. The identification and location of liquefaction and earthquake-induced landslide zones are based on available data. However, the quality of data used is varied. The zone boundaries depicted have been drawn as accurately as possible at this scale.

6) Information on this map is not sufficient to serve as a substitute for the geologic and geotechnical site investigations required under Chapters 7.5 and 7.8 of Division 2 of the Public Resources Code.

7) DISCLAIMER: The State of California and the Department of Conservation make no representations or warranties regarding the accuracy of the data from which these maps were derived. Neither the State nor the Department shall be liable under any circumstances for any direct, indirect, special, incidental or consequential damages with respect to any claim by any user or any third party on account of or arising from the use of this map.

SCALE 1:24,000 1 KILOMETER

LITTLEROCK

STATE OF CALIFORNIA **SEISMIC HAZARD ZONES**

Delineated in compliance with

Chapter 7.8, Division 2 of the California Public Resources Code (Seismic Hazards Mapping Act)

ALPINE BUTTE QUADRANGLE

PRELIMINARY REVISED MAP Released: August 11, 2004

> **SEND TECHNICAL COMMENTS TO:** State Mining and Geology Board 801 K Street, MS 24-05 Sacramento, CA 95814 COMMENT DEADLINE: November 11, 2004

MAP EXPLANATION

Zones of Required Investigation:

Liquefaction

be required.

The seismic hazard evaluation conducted by the California Geological Survey indicates low potential for liquefaction within the Hi Vista 7.5-minute Quadrangle. "Zones of Required Investigation" for liquefaction, therefore, do not appear on this map. Please refer to Section I of Seismic Hazards Zone Report 087 for further details.



Earthquake-Induced Landslides Areas where previous occurrence of landslide movement, or local topographic, geological, geotechnical and subsurface water conditions indicate a potential for permanent ground displacements such that mitigation as defined in Public Resources Code Section 2693(c) would

Seismic Hazard Zones identified on this map may include developed land where delineated hazards have already been mitigated to city or county standards. Check with your local building/planning department for information regarding the location of such mitigated areas.

> DATA AND METHODOLOGY USED TO DEVELOP THIS MAP ARE PRESENTED IN THE FOLLOWING:

Seismic Hazard Zone Report of the Alpine Butte 7.5-minute Quadrangle, Los Angeles County California: California Geological Survey, Seismic Hazard Zone Report 092.

For additional information on seismic hazards in this map area, the rationale used for zoning, and additional references consulted, refer to CGS's World Wide Web site www.conservation.ca.gov/cgs/